

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-19. (Canceled)

20. (New) A device for assembly of latticework jib elements of a latticework structure, each of the jib elements including upper chords and lower chords connected to one another by triangulation bars, the device comprising:

an upper connection including:

a connecting shaft;

a shackle configured to mount to an upper chord end of a first jib element of the jib elements to be assembled, the shackle including two parallel branches oriented in vertical planes, and each of the two branches including a main coaxial cylindrical hole with a diameter corresponding to a diameter of the connecting shaft,

—a tenon configured to mount to an upper chord end of a second jib element of the jib elements to be assembled, the tenon being oriented in a vertical plane and including an oblong hole,

the connecting shaft being configured to be engaged through the main coaxial cylindrical holes of the shackle and through the oblong hole of the tenon to detachably connect the shackle and the tenon, and

each of the shackle and the tenon including complementary abutment means acting in a substantially vertical direction during assembly and complementary abutment means acting in a substantially horizontal direction during assembly to position the shackle and the tenon.

21. (New) The device according to claim 20, wherein the abutment means acting in the substantially vertical direction includes an abutment plate joining lower parts of the two branches of the shackle and cooperating with a lower face of the tenon.

22. (New) The device according to claim 20, wherein the abutment means acting in the substantially horizontal direction includes:

a rotary positioner including a flat and a means for manipulating and immobilizing the rotary positioner, the rotary positioner being a shaft seated in the shackle by passing the shaft through two secondary coaxial cylindrical holes formed respectively in the two branches of the shackle, the means for manipulating and immobilizing the rotary positioner being capable of rotating the flat and maintaining the flat between a vertical position in which the flat faces the connecting shaft and a horizontal position in which the flat faces away from the connecting shaft; and

a substantially vertical plane front face of the tenon.

23. (New) The device according to claim 22, wherein the means for manipulating and immobilizing the rotary positioner includes a control handle connected to one end of the rotary positioner and at least one immobilizing pin engageable into a diametral hole disposed in an end region of the rotary positioner and engageable into a lateral tab integral with one of the two branches of the shackle.

24. (New) The device according to claim 23, wherein the at least one immobilizing pin is configured to immobilize a rotation of the rotary positioner to fix an angular position in which the flat is in the horizontal position.

25. (New) The device according to claim 23, wherein the lateral tab includes an indentation provided to cooperate with the control handle to manipulate the rotary positioner, the indentation forming an abutment configured to stop the rotary positioner at the angular position in which the flat is in the vertical position.

26. (New) The device according to claim 20, wherein the connecting shaft includes a substantially cylindrical shape, a widened head at one end of the connecting shaft, and a diametral hole at another end of the connecting shaft, wherein the diametral hole is configured to receive an immobilizing pin, and wherein the head of the connecting shaft is configured to be connected by a short connecting cable to at least one of the shackle and a member retained on the shackle.

27. (New) The device according to claim 22, wherein a connecting cable connects a head of the connecting shaft to the rotary positioner.

28. (New) The device according to claim 20, in a region of the lower chords, further comprising:

a lower connection including:

two centering pegs configured to be located at an end of the first jib element to be assembled, an axis of each of the centering pegs being oriented in a longitudinal direction of the first and second jib elements,

two holes respectively corresponding to the two centering pegs and configured to be located at an end of the second jib element to be assembled, the end of the second jib element being mutually adjacent to the end of the first jib element, and

a locking assembly including two connections spaced apart from one another, each of the connections including a clamping and locking means, each of the connections being configured to join the mutually adjacent ends of the first and second jib elements in a region of the lower chords of each of the first and second jib elements.

29. (New) The device according to claim 28, wherein each of the two centering pegs comprises, in succession:

an outer tip;

a frustoconical first part including a first diameter, a first length substantially elongated in the longitudinal direction of the first and second jib elements, and a first cone aperture angle;

a frustoconical second part including a larger diameter than the first diameter of the frustoconical first part, a second length shorter than the first length of the frustoconical first part, and a second cone aperture angle larger than the first cone aperture angle of the frustoconical first part; and

a cylindrical calking part configured to be attached to the first jib element, in the region of the lower chords.

30. (New) The device according to claim 28, wherein the centering pegs are configured to be mounted on a first end crossmember of a stringer of the first jib element, the stringer being a horizontal lower latticework of the first jib element, the stringer including the lower chords of the first jib element to form a rolling track for a jib trolley, the stringer including diagonal crossbracing bars, and wherein the centering pegs are located in the region of the lower chords of the first jib element.

31. (New) The device according to claim 30, wherein the two holes corresponding to the two centering pegs are configured to be located in the region of the lower chords of the second jib element and on a second end crossmember of a stringer of the second jib element, the second end crossmember being disposed at that the end of the second jib element which opposes the first end crossmember carrying the two centering pegs.

32. (New) The device according to claim 28, wherein each of the two connections of the locking assembly comprises a clamping shaft configured to be mounted slideably on the first jib element, in the region of the lower chords of the first jib element and in the longitudinal direction of the first and second jib elements, between a retracted storage

position and an advanced assembly position, the clamping shaft including a receptacle provided to receive a locking wedge of the connection.

33. (New) The device according claim 32, wherein each clamping shaft includes, in succession, a tip, a guide member, a widened head forming an abutment, and a cylindrical part including the receptacle that receives the locking wedge, the guide member cooperating with a slideway configured to be fastened to the first jib element.

34. (New) The device according to claim 33, wherein the slideway includes an abutment member provided for limiting a retraction of the clamping shaft into the retracted storage position in cooperation with the guide member.

35. (New) The device according to claim 33, wherein the clamping shaft is configured to pass, in a freely slideable manner, through a corresponding orifice of the second end crossmember of the stringer of the second jib element.

36. (New) The device according to claim 32, wherein the receptacle includes an end face inclined at an angle corresponding to a slope of the locking wedge.

37. (New) The device according to claim 32, wherein the locking wedge receives a pin to secure the locking wedge.

38. (New) The device according to claim 20, wherein the shackle and the tenon are configured to be removably mounted to the first jib element and the second jib element of the tower crane, which is devoid of a jib tie and a masthead.

39. (New) The device according to claim 27, wherein the connecting cable connects the head of the connecting shaft to a pin of the rotary positioner.

40. (New) The device according to claim 33, wherein the slideway is configured to be welded to the first end crossmember of the stringer of the first jib element.

41. (New) The device according to claim 34, wherein the abutment means of the slideway comprises a pin.